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Reptilia, Squamata, Amphisbaenidae, *Anops bilabialatus*: Distribution extension, meristic data, and conservation.

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Anops Bell 1833 is an endemic genus of South American amphisbaenid, characterized mainly by a strong vertically keeled head. Two species are presently known: *A. kingii* (type species of the genus) and *A. bilabialatus* Stimson 1972 (review in Vanzolini 1999; Gans 2005). Contrasting with the former species that is known from more than one hundred specimens from Argentina, South Brazil, and Uruguay (Vanzolini 1999), the later is rare, until now known only from eight individuals, all from two localities on the state of Mato Grosso, Brazil. Here we report on 35 additional specimens of *A. bilabialatus* recently collected, and provide meristic and scales count data for them.

Anops bilabialatus was described by Stimson (1972) based in five individuals collected between September 1967 and May 1969, during the Xavantina-Cachimbo Expedition (260 km north of Xavantina, 12°49' S, 51°46' W), state of Mato Grosso, Brazil. All were taken on the surface of the forest floor during rains or in the surface layers of soil pits under forest cover (Stimson 1972). Vanzolini (1999) reported on the only two other known individuals of the species, which were collected 25 km west of the municipality of Cláudia, state of Mato Grosso, Brazil (11°30' S, 55°07' W). They were collected when a bulldozer removed the overburden, about 1.5 meters below ground surface. These two localities are 360 km apart and are located at similar latitudes in the area of seasonal semi-deciduous forests (Vanzolini 1999). The 35 new specimens were obtained at Nova Ubiratã (13°06' S, 54°48' W), state of Mato Grosso, Brazil during a hydroelectric powerplant construction (PCH). This new record is situated 170 km South of Cláudia, and approximately 300 km southwest of the type locality, being the southernmost record for the species and extending 300 km its distribution (Figure 1).

The reservoir PCH ARS (*Agropecuária Rio Von den Steinen*), was created by the inundation of about 164.42 ha of rain forest/seasonal semi-deciduous forest of Von den Steinen River (13°05'57" S, 54°49'08" W), a tributary of Xingu River, in July–September 2006. The climate of this area is generally hot and semi-humid, with a well-marked seasonality (Nimer 1979). Mean annual temperature is around 24 °C; the rainy season occurs during the summer, from November to April, and there are only four to five months of drought (May to October). Total annual precipitation, on average, is around 2,250 mm (Nimer 1979).

Specimens were collected following bulldozers during biological inventories in the area, before (3 specimens) and during (32 specimens) the filling of the reservoir. All specimens are deposited at *Coleção Zoológica da Universidade Federal do Mato Grosso*, Cuiabá, Brazil (UFMT). Sixteen individuals (UFMT 4765, 4767, 4777, 5413–5, 5418–20, 5422–3, 5435–7, 5453–4) were not included in this report because they were mutilated and consequently accurate measurements could not be taken.

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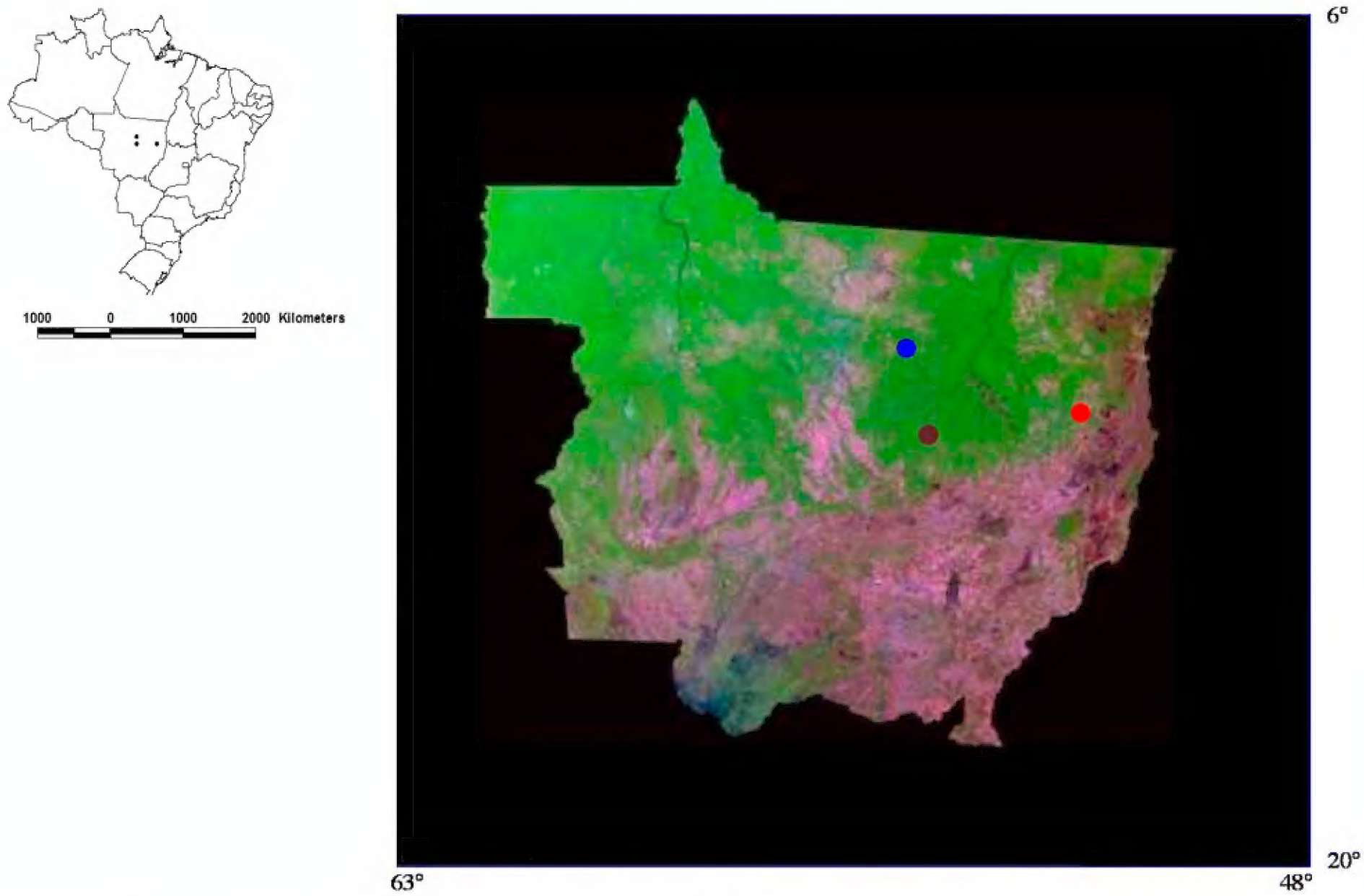

Figure 1. Geographic distribution of *Anops bilabialatus*. Red, blue, and brown dots represent the type locality, the municipality of Cláudia, and the new record, respectively.

Table 1 presents the scale counts and meristic data for specimens of *Anops bilabialatus* at disposal (23 of 42 known specimens; data obtained from Stimson 1972; Vanzolini 1999; present study). Figure 2 is a photograph of a former alive specimen (now UFMT 4766). The range of the body and tail annuli and dorsal segments to a midbody annulus, was slightly expanded for the species, from 354-372 to 349-378 (cf. Stimson 1972; count methodology according to Gans and Alexander 1962), from 15-17 to 15-18, and from 12-16 to 12-20 respectively (Table 1).

Amphisbaenians are hard to found due to their secretive lifestyle. Nevertheless, the increase of hydroelectric powerplant constructions provides unique opportunities to collect them, along with other samples of fossorial Squamates. To date, the several activities involved in the construction or filling of hydroelectric powerplant in Brazil resulted in range extension or discovery of new amphisbaenian species (data partially summarized from Vanzolini 2002 for the genus *Amphisbaena*). Despite the fact that high underground diversity has been discovered, local extinction of fossorial populations due to these landscape alterations may be occurring. It is alarming, considering that he highest number of hydroelectric powerplants in construction are distributed in the Brazilian Cerrado (ANEEL 2007), the only threatened savanna-like vegetation region in the world, which is considered a biodiversity hotspot (Myers et al. 2001; Conservation International 2005). Biological inventories and monitoring of these areas and their surroundings before and after the dam construction are mandatory in order to gather biological information (which species are there and how their populations are responding in face of impacts of this kind). Furthermore, these data must be available for researchers whether we want to mitigate the impact of hydroelectric powerplant constructions in such fragile ecosystem.

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Table 1. *Anops bilabialatus* measurements and scale counts. MZUSP = *Museu de Zoologia da Universidade de São Paulo*; BMNH = British Museum (Natural History); UMMZ = University of Michigan Museum of Zoology; UFMT = *Coleção Zoológica da Universidade Federal do Mato Grosso*. MZUSP 21276, MZUSP 21277, BMNH 1971.1028, UMMZ 131700, and BMNH 1971.1029 are the holotype and paratypes, respectively, and data were obtained from Stimson (1972). MZUSP 81776–7 are from 25 km away from the municipality of Cláudia, state of Mato Grosso, and data were obtained from Vanzolini (1999). - = data not available because the specimens are mutilated and/or the data is absent from the literature.

Institution number	Length (mm)		Annuli		Segments		Pores	Midbody width (mm)	Total length/ midbody width
	Body	Tail	Body	Tail (autotomic annulus)	Dorsal	Ventral			
MZUSP 21276	250	15	372	15	17-19	19-21	2	-	-
MZUSP 21277	-	-	-	-	16-17	18-20	-	-	-
BMNH 1971.1028	230	15	360	16 (7)	18-19	19-20	2	-	-
UMMZ 131700	224	14	358	15 (7)	15-17	18-19	2	-	-
BMNH 1971.1029	131	10	366	16 (6)	16-18	18-19	2	-	-
MZUSP 81776	-	-	-	17	-	-	-	-	-
MZUSP 81777	307	20	354	16	15	17	2	-	-
UFMT 4766	153	9	359	16 (7)	18	18	2	3.88	41.75
UFMT 4768	225	15	361	17 (7)	17	18	2	4.94	48.58
UFMT 4769	245	17	365	17 (7)	20	20	2	5.13	51.07
UFMT 4770	196	14	362	17 (7)	16	17	2	4.02	52.23
UFMT 4771	291	16	349	17 (7)	20	19	2	6.66	46.09
UFMT 4772	257	15	378	16 (6)	18	18	2	5.77	47.14
UFMT 4773	266	16	362	16 (7)	19	18	2	6.34	44.47
UFMT 4774	236	16	364	17 (7)	19	17	2	6.26	40.25
UFMT 4775	267	16	361	16 (7)	18	20	2	6.41	44.14
UFMT 4776	-	17	-	18 (8)	17	19	2	-	-
UFMT 4778	269	16	356	16 (7)	19	18	2	5.91	48.22
UFMT 5366	-	12	-	18 (8)	18	16	2	-	-
UFMT 5367	-	-	-	16 (7)	15	16	2	-	-
UFMT 5410	-	17	-	18 (8)	18	18	2	-	-
UFMT 5412	247	14	362	18 (8)	16	18	2	5.71	45.10
UFMT 5416	-	14	-	18 (8)	-	-	2	-	-
UFMT 5417	138	8	369	18 (8)	-	-	2	-	-
UFMT 5421	-	14	-	17 (7)	18	19	2	-	-
UFMT 5432	201	13	-	18 (8)	17	18	-	-	-

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Figure 2. *Anops bilabialatus* (UFMT 4766), from the municipality of Nova Ubiratã, state of Mato Grosso, Brazil.

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